IN THE CLAIMS:

12. (New) A data output method for exclusively writing on a recording medium a data stream to be inputted and reading said data stream recorded on said recording medium to send said data stream to an external device,

said data stream containing video-audio information compressed at a variable bit rate,

said data output method comprising steps of:

holding said inputted data stream in a first buffer;

writing on said recording medium said data stream held in said first buffer by means of a writing means;

holding in a second buffer said data stream to be outputted to said external device;

reading onto said second buffer said data stream held on said recording medium by means of a reading means;

predicting duration to consume said data stream held on said second buffer on the basis of duration required for presentation of the video-audio information contained in said data stream held on said second buffer by means of a predicting means; and

controlling said writing means and said reading means by a control means, said control means giving a permit said reading means to read said data stream from said recording medium onto the second buffer if the predicted duration is less than a threshold value.

13. (New) The data output method as defined in claim 12, wherein said control means further controls said writing means and said reading means in such a way as to limit the

number of the first buffers or the second buffers to be used currently.

14. (New) The data output method as defined in claim 12, wherein said control means give a permit said writing means to write said data stream from the first buffer to said recording medium if the predicted duration is not less than the threshold value.

15. (New) The data output method as defined in claim 14, wherein said control means prohibits the writing of said data stream from the first buffer to said recording medium if the predicted duration is less than the threshold value.

16. (New) A data output method for writing on a recording medium a data stream to be inputted and reading and sending out said data stream recorded on said recording medium to an external device,

said data stream containing video-audio information compressed at a variable bit rate,

said data output method comprising steps of:

holding said inputted data stream in a first buffer;

writing on said recording medium said data stream held in said first buffer by means of a writing means;

holding in a second buffer said data stream to be outputted to said external device;

reading onto said second buffer said data stream held on said recording medium by means of a reading means;

predicting duration to consume said data stream held on said second buffer, referring to a

duration table held in a memory, on the basis of duration required for presentation of the video-audio information contained in said data stream held in said second buffer by means of a predicting means,

said duration table in which the offset values b01, b02, ..., b0n of said data stream are linked to the times a01, a02, ..., a0n for said data stream of said offset values b01, b02, ..., b0n each to be reproduced,

said predicting means measuring the amount of data sent out from said second buffer and the amount of data inputted in the second buffer, working out the top offset value b0i and the last offset value b0j of said data stream held in the second buffer on the basis of said amount of data sent out and the amount of data inputted, and acquiring the time a0i corresponding to the offset value b0i and the time a0j corresponding to the offset value b0j, thereby working out said predicted duration a0j- a0i; and

controlling said writing means and said reading means by means of a control means,

said writing means and said reading means writing or reading said data stream exclusively on said recording medium, and

said control means controlling said writing means and said reading means on the basis of the predicted duration to consume said data stream to prevent said second buffer from underflow.

17. (New) A data output method for writing on a recording medium a data stream to be inputted and reading and sending out said data stream recorded on said recording medium to an external device,

said data stream containing video-audio information compressed at a variable bit rate,

said data output method comprising steps of:

holding said inputted data stream in a first buffer;

writing on said recording medium said data stream held in said first buffer by mean of a writing means;

holding in a second buffer said data stream to be outputted to said external device;

reading onto said second buffer said data stream held on said recording medium by means of a reading means;

predicting duration to consume said data stream held on said second buffer, referring to a time table on a memory, on the basis of duration required for presentation of the video-audio information contained in said data stream held on said second buffer by means of a predicting means,

said time table in which the durations "a11 - 0," a12 - a11," "a13 - a12," ... "a1n - a1(n-1)" are linked to the bit rates r11, r12, r13 ..., r1n of the data stream at the respective durations,

said predicting means measuring the amount of data sent out from said second buffer and the amount of data inputted in the second buffer, and working out the top offset value a1i and the last offset value a1j of said data stream held in the second buffer on the basis of said amount of data sent out and the amount of data inputted, thereby working out said predicted duration a1j - ali: and

controlling said writing means and said reading means by a control means,

said writing means and said reading means writing or reading said data stream exclusively on said recording medium, and

said control means controlling said writing means and said reading means on the basis of

the predicted duration to consume said data stream to prevent said second buffer from underflow.

18. (New) The data output method as defined in claim 12 wherein said data stream is a data stream of the MPEG formula and wherein said predicting means:

acquires the time code value utilized for reproduction that is contained in the data stream of the MPEG formula held in said second buffer, and

predicts the duration to consume said data stream held in the second buffer on the basis of said time code.

19. (New) The data output method as defined in claim 18, wherein said time code is a system clock reference in the pack header provided at the head of each pack forming the program stream of the MPEG formula.

20. (New) The data output method as defined in claim 18, wherein said time code is a system clock reference in the adaptation field at each transport packet forming a transport stream of the MPEG formula.

21. (New) The data output method as defined in claim 12, wherein said data stream is a data stream in which bit rate information at the duration of reproduction in blocks is recorded in the information field provided at the head in the respective blocks of said data stream, and wherein said predicting means:

acquires from said information field bit rate information at the time of reproduction in

blocks of the data stream held in the second buffer,

acquires the size of each block, and

predicts the duration to consume said data stream held in the second buffer on the basis of said information on bit rate and said block size.

22. (New) The data output method as defined in claim 18 or 21 wherein there is additionally provided send rate detection means for detection of the amount of data per unit period to be sent out from the second buffer, and said predicting means:

predicts the duration to consume said data stream held in the second buffer on the basis of the history of the amounts of data per unit period sent out from the second buffer, the above amounts of data detected by said send rate detection means, and the history of the durations required for presentation of video-audio information contained in said data stream held in the second buffer.